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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/712,608	11/13/2003	Thomas Thoroe Scherb	V010284.US	9017
7590		05/02/2007		
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			EXAMINER	
			LU, JIPING	
			ART UNIT	PAPER NUMBER
			3749	
			MAIL DATE	DELIVERY MODE
			05/02/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/712,608

Applicant(s)

SCHERB ET AL.

Examiner

Jiping Lu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 06 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 19-34 and 47-50 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 19-22 is/are allowed.
- 6) ☒ Claim(s) 23-34 and 47-50 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Status*

1. Claims 19-34 and 47-50 are now in the case. Claims 1-18, 35-46 and 51-52 have been cancelled. Claims 19-22 are allowed.

### *Claim Rejections - 35 USC § 103*

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 23-34 and 47-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kimura et al (U.S. Pat. 5,985,073) in view of Griner (U.S. Pat. 2,887,964).

Kimura et al show a cylinder 2 comprising fiber-reinforced plastic and webs 3 (see Figs. 3-5) including fiber reinforced plastic (col. 5, line 5 to col. 6, line 5). However, Kimura patent does not show plurality of webs in circumferential and axial directions, which form a plurality of apertures. Griner shows a construction of a cylinder 11 by forming and bonding plurality of webs in axial 68 and circumferential 63 directions in a shaped matched manner and resulting in plurality of apertures or recesses same as the applicant's apertures 36, radial webs 38, axial webs 40. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the cylinder of Kimura et al. to include axial webs and circumferential webs as taught by Griner in order to form a sturdy construction. The recess or apertures or openings will be inherently formed on the surface of the cylinder by such crisscross arrangement of radial and circumferential webs. With regard to the newly added limitations "said

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fiber-reinforced plastic having a plurality of fibers that substantially oriented in said circumferential direction”, since the Griner patent does show such claimed axial and circumferential directions same as the applicant’s. Therefore, it is also deemed to be obvious to use the fiber-reinforced plastic material in Kimura et al to orient in circumferential direction as taught by Griner in order to form a sturdy construction. With regard to various claimed shapes, sizes, heights and percentages, it is deemed to be merely an obvious matter of design choice, which produces no new or unexpected results over the prior art references. Therefore, it would have been an obvious to design the passage opening of the cylinder of Kimura et al. as modified by Griner with any desired shape, size, heights and percentages in order to obtain the optimum result since applicant has not disclosed that the claimed shape, size, heights and percentages solve any stated problem in a new or unexpected way or is for any particular purpose which is unobvious to one of ordinary skill in the art and it appears that the claimed feature does not distinguish the invention over similar features in the prior art since, the cylinder of Kimura et al. as modified by Griner will perform the invention as claimed by the applicant with the passage opening having any kind of the shape, size, heights and percentages.

#### ***Allowable Subject Matter***

4. Claims 19-22 are allowed.

#### ***Response to Arguments***

5. Applicant's arguments filed 2/6/07 have been fully considered but they are not persuasive to overcome the rejection. First, claims fail to structurally define over the prior art references.

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Second, the applicant argues that there is no teaching to combine the references. The examiner disagrees. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Kimura patent shows a cylinder 2 comprising fiber-reinforced plastic and webs 3 including fiber reinforced plastic same as the applicant's. Griner shows a construction of a cylinder 11 by forming and bonding plurality of webs in axial 68 and circumferential 63 directions in a shaped matched manner and resulting in plurality of apertures or recesses same as the applicant's. Therefore, in view of the combined teachings of the prior art references, it is the examiner's position that it would have been obvious to one skilled in the art to modify the cylinder of Kimura et al. to use the fiber-reinforced plastic for axial webs and circumferential webs as taught by Griner in order to form a sturdy construction.

### ***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

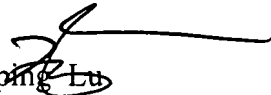
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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jiping Lu whose telephone number is 571 272 4878. The examiner can normally be reached on Monday-Friday, 9:00 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, KENNETH RINEHART can be reached on 571 272-4881. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Jiping Lu  
Primary Examiner  
Art Unit 3749

J. L.